WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence as set forth in SEQ ID NO: 1;

(b) the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA 2481;

(c) a nucleotide sequence encoding the polypeptide as set forth in SEQ ID NO: 2;

(d) a nucleotide sequence that hybridizes under at least moderately stringent conditions to the complement of the nucleotide sequence of any of (a) - (c); and

(e) a nucleotide sequence complementary to the nucleotide sequence of any of (a) - (c).

2. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide that is at least about 70 percent identical to the polypeptide as set forth in SEQ ID NO: 2 or the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA 2481, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(b) a nucleotide sequence encoding an allelic variant or splice variant of the nucleotide sequence as set forth in SEQ ID NO: 1, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA 2481, or the nucleotide sequence of (a);

(c) a region of the nucleotide sequence of SEQ ID NO: 1, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA 2481, or the nucleotide sequence of (a) or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide fragment has an activity of the encoded polypeptide as set forth in SEQ ID NO: 2, or is antigenic;

(d) a region of the nucleotide sequence of SEQ ID NO: 1, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA 2481, or the nucleotide sequence of any of (a) - (c) comprising a fragment of at least about 16 nucleotides;

(e) a nucleotide sequence that hybridizes under at least moderately stringent conditions to the complement of the nucleotide sequence of any of (a) - (d); and

(f) a nucleotide sequence complementary to the nucleotide sequence of any of (a) - (d).

3. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 2 with at least one conservative amino acid substitution, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(b) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 2 with at least one amino acid insertion, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(c) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 2 with at least one amino acid deletion, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 2 that has a C- and/or N- terminal truncation, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(e) a nucleotide sequence encoding a polypeptide as set forth in SEQ ID NO: 2 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the encoded polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(f) a nucleotide sequence of any of (a) - (e) comprising a fragment of at least about 16 nucleotides;

(g) a nucleotide sequence that hybridizes under at least moderately stringent conditions to the complement of the nucleotide sequence of any of (a) - (f); and

(h) a nucleotide sequence complementary to the nucleotide sequence of any of (a) - (e).

4. A vector comprising the nucleic acid molecule of any of Claims 1, 2, or 3.

5. A host cell comprising the vector of Claim 4.

6. The host cell of Claim 5 that is a eukaryotic cell.

7. The host cell of Claim 5 that is a prokaryotic cell.

8. A process of producing a B7-L polypeptide comprising culturing the host cell of Claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.

9. A polypeptide produced by the process of Claim 8.

10. The process of Claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native B7-L polypeptide operatively linked to the DNA encoding the B7-L polypeptide.

11. The isolated nucleic acid molecule according to Claim 2, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

12. A process for determining whether a compound inhibits B7-L polypeptide activity or B7-L polypeptide production comprising exposing a cell according to any of Claims 5, 6, or 7 to the compound and measuring B7-L polypeptide activity or B7-L polypeptide production in said cell.

13. An isolated polypeptide comprising the amino acid sequence selected from the group consisting of:

(a) the amino acid sequence as set forth in SEQ ID NO: 2; and

(b) the amino acid sequence encoded by the DNA insert of ATCC Deposit No. PTA 2481.

14. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of

(a) the amino acid sequence as set forth in SEQ ID NO: 3, optionally further comprising an amino-terminal methionine;

(b) an amino acid sequence for an ortholog of SEQ ID NO: 2;

(c) an amino acid sequence that is at least about 70 percent identical to the amino acid sequence of SEQ ID NO: 2 or the amino acid sequence encoded by the DNA insert of ATCC Deposit No. PTA 2481, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(d) a fragment of the amino acid sequence set forth in SEQ ID NO: 2 or the amino acid sequence encoded by the DNA insert of ATCC Deposit No. PTA 2481 comprising at least about 25 amino acid residues, wherein the fragment has an activity of the polypeptide set forth in SEQ ID NO: 2, or is antigenic; and

(e) an amino acid sequence for an allelic variant or splice variant of the amino acid sequence as set forth in SEQ ID NO: 2, the amino acid sequence encoded by the DNA insert of ATCC Deposit No. PTA 2481, or the amino acid sequence of any of (a) - (c).

15. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence as set forth in SEQ ID NO: 2 with at least one conservative amino acid substitution, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(b) the amino acid sequence as set forth in SEQ ID NO: 2 with at least one amino acid insertion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(c) the amino acid sequence as set forth in SEQ ID NO: 2 with at least one amino acid deletion, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2;

(d) the amino acid sequence as set forth in SEQ ID NO: 2 that has a C- and/or N- terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2; and

(e) the amino acid sequence as set forth in SEQ ID NO: 2 with at least one modification selected from the group consisting of amino acid substitutions, amino acid insertions, amino acid deletions, C-terminal truncation, and N-terminal truncation, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2.

16. An isolated polypeptide encoded by the nucleic acid molecule of any of Claims 1, 2, or 3, wherein the polypeptide has an activity of the polypeptide set forth in SEQ ID NO: 2.

17. The isolated polypeptide according to Claim 14, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTP, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

18. A selective binding agent or fragment thereof that specifically binds the polypeptide of any of Claims 13, 14, 15, or 56.

19. The selective binding agent or fragment thereof of Claim 18 that specifically binds the polypeptide comprising the amino acid sequence as set forth in SEQ ID NO: 2, or a fragment thereof.

20. The selective binding agent of Claim 18 that is an antibody or fragment thereof.

21. The selective binding agent of Claim 18 that is a humanized antibody.

22. The selective binding agent of Claim 18 that is a human antibody or fragment thereof.

23. The selective binding agent of Claim 18 that is a polyclonal antibody or fragment thereof.

24. The selective binding agent Claim 18 that is a monoclonal antibody or fragment thereof.

25. The selective binding agent of Claim 18 that is a chimeric antibody or fragment thereof.

26. The selective binding agent of Claim 18 that is a CDR-grafted antibody or fragment thereof.

27. The selective binding agent of Claim 18 that is an antiidiotypic antibody or fragment thereof.

28. The selective binding agent of Claim 18 that is a variable region fragment.

29. The variable region fragment of Claim 28 that is a Fab or a Fab' fragment.

30. A selective binding agent or fragment thereof comprising at least one complementarity determining region with specificity for a polypeptide having the amino acid sequence of SEQ ID NO: 2.

31. The selective binding agent of Claim 18 that is bound to a detectable label.

32. The selective binding agent of Claim 18 that antagonizes B7-L polypeptide biological activity.

33. A method for treating, preventing, or ameliorating a B7-L polypeptide-related disease, condition, or disorder comprising administering to a patient an effective amount of a selective binding agent according to Claim 18.

34. A selective binding agent produced by immunizing an animal with a polypeptide comprising an amino acid sequence of SEQ ID NO: 2.

35. A hybridoma that produces a selective binding agent capable of binding a polypeptide according to any of Claims 13, 14, 15, or 56.

36. A method of detecting or quantitating the amount of B7-L polypeptide using the anti-B7-L antibody or fragment of Claim 18.

37. A composition comprising the polypeptide of any of Claims 13, 14, 15, or 56, and a pharmaceutically acceptable formulation agent.

38. The composition of Claim 37, wherein the pharmaceutically acceptable formulation agent is a carrier, adjuvant, solubilizer, stabilizer, or anti-oxidant.

39. The composition of Claim 37 wherein the polypeptide comprises the amino acid sequence as set forth in SEQ ID NO: 3.

40. A polypeptide comprising a derivative of the polypeptide of any of Claims 13, 14, 15, or 56.

41. The polypeptide of Claim 40 that is covalently modified with a water-soluble polymer.

42. The polypeptide of Claim 41, wherein the water-soluble polymer is selected from the group consisting of polyethylene glycol, monomethoxy-polyethylene

glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone) polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide co-polymers, polyoxyethylated polyols, and polyvinyl alcohol.

43. A composition comprising a nucleic acid molecule of any of Claims 1, 2, or 3 and a pharmaceutically acceptable formulation agent.

44. The composition of Claim 43, wherein said nucleic acid molecule is contained in a viral vector.

45. A viral vector comprising a nucleic acid molecule of any of Claims 1, 2, or 3.

46. A fusion polypeptide comprising the polypeptide of any of Claims 13, 14, 15, or 56 fused to a heterologous amino acid sequence.

47. The fusion polypeptide of Claim 46, wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

48. A method for treating, preventing, or ameliorating a medical condition comprising administering to a patient the polypeptide of any of Claims 13, 14, 15, or 56, or the polypeptide encoded by the nucleic acid of any of Claims 1, 2, or 3.

49. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of any of Claims 13, 14, 15, or 56, or the polypeptide encoded by the nucleic acid molecule of any of Claims 1, 2, or 3 in a sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

50. A device, comprising:

(a) a membrane suitable for implantation; and

(b) cells encapsulated within said membrane, wherein said cells secrete a protein of any of Claims 13, 14, 15, or 56; and

said membrane is permeable to said protein and impermeable to materials detrimental to said cells.

51. A method of identifying a compound that binds to a B7-L polypeptide comprising:

(a) contacting the polypeptide of any of Claims 13, 14, 15, or 56 with a compound; and

(b) determining the extent of binding of the B7-L polypeptide to the compound.

52. The method of Claim 51, further comprising determining the activity of the polypeptide when bound to the compound.

53. A method of modulating levels of a polypeptide in an animal comprising administering to the animal the nucleic acid molecule of any of Claims 1, 2, or 3.

54. A transgenic non-human mammal comprising the nucleic acid molecule of any of Claims 1, 2, or 3.

55. A process for determining whether a compound inhibits B7-L polypeptide activity or B7-L polypeptide production comprising exposing a transgenic mammal according to Claim 54 to the compound, and measuring B7-L polypeptide activity or B7-L polypeptide production in said mammal.

56. An isolated polypeptide comprising the amino acid sequence as set forth in SEQ ID NO: 2 with at least one conservative amino acid substitution selected from the group consisting of: valine at position 4; isoleucine or valine at position 6; leucine or

valine at position 7; methionine or valine at position 8; isoleucine at position 10; leucine or valine at position 17; glycine at position 19; serine at position 22; leucine at position 23; aspartic acid at position 28; leucine or valine at position 31; valine at position 32; isoleucine at position 40; leucine at position 50; valine at position 52; valine, leucine, or methionine at position 55; arginine at position 61; methionine at position 62; lysine at position 70; serine at position 74; isoleucine or methionine at position 75; valine at position 76; aspartic acid at position 78; methionine or isoleucine at position 80; arginine at position 84; leucine at position 89; asparagine at position 91; isoleucine or leucine at position 92; isoleucine or leucine at position 94; glutamic acid at position 96; aspartic acid at position 97; phenylalanine at position 100; valine at position 104; leucine at position 105; arginine at position 107; tyrosine at position 110; glutamic acid at position 111; valine or isoleucine at position 115; serine at position 116; valine at position 117; glycine at position 121; valine or methionine at position 126; valine or isoleucine at position 131; isoleucine or leucine at position 139; isoleucine at position 141; serine at position 146; phenylalanine at position 148; isoleucine, methionine, or leucine at position 153; isoleucine at position 160; threonine at position 165; aspartic acid at position 171; phenylalanine at position 174; serine at position 177; threonine at position 178; valine at position 180; methionine, valine, or isoleucine at position 182; arginine at position 183; lysine at position 188; isoleucine or leucine at position 193; lysine at position 200; valine at position 202; isoleucine at position 204; valine or methionine at position 209; isoleucine at position 213; isoleucine or valine at position 222; valine at position 223; leucine at position 225; valine or leucine at position 227; leucine or valine at position 231; leucine at position 232; valine or leucine at position 235; methionine or isoleucine at position 240; arginine at position 250; arginine at position 255; glutamic acid at position 256; serine at position 264; arginine at position 266; and leucine at position 268; wherein the polypeptide has an activity of the polypeptide as set forth in SEQ ID NO: 2.

57. A nucleic acid molecule of any of Claims 1, 2, or 3 attached to a solid support.

58. An array of nucleic acid molecules comprising at least one nucleic acid molecule of any of Claims 1, 2, or 3.